

Meng Hardy
EDU 402
Dr. Grace Ward
11/15/13

Philosophy of Education

As I approach the end of this Philosophy and History of Education course, I couldn't help but reminisce over my educational journey. Ralph Tyler believed the purpose of life was learning, and I believe that self-reflection is essential in learning and personal growth. It is vital to understand where I came from, reflect on where I am, and anticipate to where I am heading.

Having grown up in Beijing, China, where education was teacher-centered, test-driven, and fact-based, I am quite familiar and adapted to traditional models of direct instruction. After I came to UMF, I enjoyed the liberal arts curriculum when I acquired my bachelor's degree in mathematics in 2006. However, most of the courses were still taught using direct instruction. I didn't know teaching and learning could happen in any other way until I enrolled in the Secondary/Middle Education Program at UMF. Ever since my first EDU 101 class, my beliefs on teaching and learning have been evolving. I have been exposed to scaffolding, learning styles, MIs, special education, preventive discipline strategies, and technologies. Now I firmly believe in student-centered and project-based learning. I have seen those effective strategies in action modeled by my inspiring professors, and I have personally implemented them in my teaching during Practicum and substitute teaching opportunities. My philosophy of education hasn't drastically changed because of this EDU 402 class. Nonetheless, I recognize that this class has exposed me to more philosophers and has also made me analyze my own beliefs against various schools of philosophy and educational theories.

I chose teaching as my profession, because I value the importance education has to every student, the community, our society, and the future. All students are entitled to quality education, despite their gender, race, socioeconomic status, and ability. I chose Mathematics, because I appreciate its beauty and believe it is misunderstood by most. As a teacher, I will be teaching math to students, and much more.

My understanding of teaching mathematics aligns with Essentialism, Progressivism, and Constructivism. Essentialism believes students should learn a common core of information and skills, which is the foundation of Mathematics. A set of rules, such as the distributive property of multiplication, has existed and will exist despite human perception. Knowing these mathematical rules will help students solve problems. However, Mathematics is so much more than just a set of patterns and rules. Progressivism views reality and the world as ever changing. I could not agree more. Simply teaching students mathematical facts and rules are not doing them justice in a rapidly changing world. Progressivism emphasizes the importance of teaching how to think, but not what to think. Constructivism focuses on developing students' critical thinking and understanding big ideas. I wish to facilitate students' learning of the mathematical facts, problem solving and critical thinking skills. My ultimate goal for teaching mathematics is to have students understand the facts, possess the skills, enjoy the aptitude to take on challenges and apply their knowledge to new situations.

Aside from teaching a subject and skills, there is still so much more an educator could impart to the students. As this point, I strongly believe that teachers should be role models on moral standards, just as Herbart believed. "Teaching is the conveying of new knowledge, developing aptitudes, and imparting useful skills. Education should not just impart knowledge and shape aptitudes and skills, but it has to serve to develop a 'moral insight' and to 'strengthen

character' which are aspects of the will." (Murphy, 2006) There are also other historical philosophers who stressed the education of the "whole student," or "head, heart, hands," which are somewhat similar to Herbart's belief on "moral insight."

Students are the future of the community and our society. With only knowledge and skills but no morals, our future could be bleak. There are so many contributing factors to the need for moral guidance in schools. Conflicting and misleading images and messages from media, rapidly changing technology with social standards and etiquette lacking behind, and ever-expanding diversity due to economy and technology are testing our inner humanity. I wish to incorporate modeling and teaching of appropriate digital citizenship throughout my lessons.

In my opinion, a competent teacher is a multi-facet individual. One who should be kind, caring, and enthusiastic as Jesus and Augustine modeled. One should be an expert on the subject content, as Confucius, Aristotle and Quintilian believed. One should be trained to teach, just like what Mann, Counts, and Ralph Tyler thought. One should understand the physical and psychological developmental stages of students, and one should adjust education accordingly, which was advocated by Aristotle, Quintilian, Comenius and Piaget. One should also strive to produce and strengthen the moral standards in students, as Herbart supported. I am and will be working towards being a competent teacher.

Education is teaching and learning. I understand that teaching and learning is a two-direction interaction between the students and the teacher. Students can learn from me, I can also learn from the students, about them, their culture, preferred instructional models, methods, and activities.

My philosophy of teaching is heavily impacted by my educational experience in China, which I do not want to repeat in my own classroom for students. My training and learning at UMF has provided me with many research-based effective practices that I wish to implement in my own class. Through this EDU 402 Philosophy and History of Education course, I came to realize that my philosophy of teaching and learning is mostly related to Pragmatism and Existentialism. Their beliefs will be reflected in every practice and aspect in my actions, from my classroom set up, lesson planning, and instruction models, to assessment, discipline and technology integration.

I appreciate the different developmental stages of an individual, I marvel at the changes each one goes through, and I anticipate the changes that will bring one to adulthood. Middle school and high school students are developmentally different, but they could still be active learners. I embrace diversity in a classroom as much as in our society. My students will be a diverse group. They will be unique individuals resembling the population in the community, based on their family backgrounds, race, ethnicity, language and socioeconomic status. Students are also different because of their learning styles, interests, precursor knowledge, multiple intelligences, and attitudes.

I believe in autonomy and responsibility regarding discipline, but those come with a scaffolding process. I will engage students in the decision making process for our classroom rules. I like to have “be safe, be responsible, be respectful” as guidelines and a starting point. We will have a class discussion on the details and our interpretations of those guidelines. Then we will make our classroom rules based on all the ideas students could agree upon. Responsible digital citizenship will be included in our classroom rules, too. We will have a version of the classroom rules made into a poster to be displayed on the wall. Since the classroom rules are

made by students, they are responsible for their own behavior and for reinforcing the rules amongst their peers. Peer pressure would be used in a positive way to maintain our student-organized class.

I will give students the chance to take on leadership roles when they are comfortable and passionate about the issues. The class does not belong to me; it belongs to both the students and to me. We will make decisions, keep the classroom organized, and keep our class operating smoothly.

I want to create an open, comfortable and supportive learning environment for everyone, both the students and teachers and aides. Only when we have a trusting community, which values and embraces diversity, can students truly take risks, face challenges, collaborate and learn from each other.

One of my goals as an educator is to have students become active participants in their own learning. I would love to think that the students are all active learners who are self-motivated. However, that won't be the reality when I first start teaching, so that could be the end result that I hope to achieve when the students move on to the next grade or teacher. I would start by using external motivation for students to see that math is relevant to real-life, challenging, and fun. Once I know the students' interests, hopes, dreams, and long-term plans, I can design applicable and engaging lessons and activities. When I get the students interested in the lesson, and they start learning, I can encourage them to believe that every one of them could do well with math, even when they are making mistakes. From then, I hope that I could build up their interest and confidence in math class, so their motivation will gradually switch from

external to internal. I do believe only when one has internal motivation, one has the desire to participate, learn, and excel.

Other than motivation, students will experience changes in attitudes, especially towards their abilities of learning math. I will be using strategies explained in *Mindset*, written by Carol Dweck, to help students understand that mistakes are opportunities where true learning happens. The right answers and acquired skills are the end of a learning journey, whereas mistakes and unknowns are the exciting openings for growth and new brain synapses to form.

The classroom setup will reflect my student-centered beliefs. There will be certain areas setup permanently, such as a snack corner, library, games/manipulatives, and pets/plants. The tables and chairs should be flexible enough to move around the room based on the lessons and activities. There will be posters and student work on the wall. A SMART Board will be in the front of the room and preferably two white boards on the walls, so I can do a smaller version of 360 degree math. I am considering having exercise balls instead of chairs, and students could also stand up to use a tall table.

I am an advocate of authentic curriculum, especially project-based learning. I believe that students learn best by doing, with peers and with real-life applicable problems. Also the goal of math education is to teach students the facts and skills, so they can apply them in new and ever changing situations. Authentic curriculum is even more important in a math class, because traditional lectures make math detach from reality. Students perceive math as a set of facts, rules and theorems that are not useful. Authentic curriculum makes math learning relevant to the students' lives. Pragmatism is interested in "how to question what we know and how to reconstruct what we know to match the changing world." (Johnson, 2011, p. 92) Authentic

curriculum allows students to engage in meaningful and reflective learning. Students are more adept at using the knowledge and skills that they acquired through authentic curriculum in new situations.

Authentic curriculum could also be an ideal platform for interdisciplinary projects. Tyler believed in cooperative learning and interdisciplinary methods. Authentic curriculum uses real-life applicable problems for students to solve. In real life, no one academic subject stands alone, so the interdisciplinary approach is most practical for authentic curriculum.

Mass Customized Learning (MCL) and authentic curriculum could work coherently as a student-centered teaching practice. Forgoing the grade levels based on age, the letter grades, or report cards, MCL emphasizes proficiency. Students can focus on mastering concepts at a pace that is suitable to them. I applaud the idea of “flipped classroom,” in which students watch video lessons and tutorials on new topics, so they can come into school with all their questions. A flipped classroom could be implemented with either MCL or authentic curriculum effectively. A flipped classroom could offer students the personalized lessons when they are home, and they can ask specific clarifying questions when they are in class.

I believe that students should have choices concerning their learning experiences, with the teacher’s guidance. There is a shift of responsibility from me to the students. I will be a facilitator and mentor, instead of an instructor, in the students’ learning process. Pragmatism believes that “knowing is a transaction or a conversation between the learner and the environment.” (Johnson, 2011, p. 91) Problems and projects have to be authentic, so that they are developmentally appropriate and based on students’ interests. Students will be engaged and motivated in the problem solving. They will work with peers, conduct research, learn new

concepts, and form valuable skills. Students will be able to analyze mathematical problems through their own perspective utilizing math facts and logic. There should be more than one way to get the right answer.

I prefer to start my lesson with a game as pre-assessment and a hook to get the students' minds ready for learning. From the pre-assessment, I can decide if some students may still need help, or certain concepts need clarification, before we start on a new learning experience. I also value manipulatives, even in the secondary level classroom. Manipulatives, concrete or digital, are useful in helping students to develop connections to abstract concepts.

Among the variety of instructional models that I have learned from my EDU 361 Math Methods course, I prefer inductive instruction models, such as concept attainment, learning cycle, cooperative learning and unguided inquiry. For direct instruction, the teacher gives the generalization or rules to be learned to students, explains it, and gives some examples. On the other hand, inductive models start with specific examples or activities. I will help students to look for patterns from all examples, so students learn through activities to make generalization. Inductive instructional models are highly student-centered. They offer ample opportunities for students to collaborate with peers.

Technology in education may not have been needed in the past, but as I prepare the students to be 21st century learners, technology is essential. With one-to-one laptops or tablets in Maine, students are starting with a remarkable advantage on technology. If used correctly, technology can make math learning more engaging and accessible. Technology is not an end product, it is a learning tool, even if it's used on Redefinition level of SAMR. Technology could promote collaboration, communication, and creativity. With its rapid development, it is

important for students to learn how to act on digital platforms. Learning appropriate digital citizenship could be incorporated into our lessons.

Because each student learns differently, pre-assessment and formative assessment will assist me to check students' understanding so that I can adjust my materials and my teaching style. Authentic summative assessment, which could be a product or a portfolio, will allow the students to show their understanding and growth in their unique methods. When students apply math for a project, there could be a unique product for each student. If an exam is necessary, there will be more applications of math knowledge than just testing straight facts.

My philosophy of education overlaps with Constructivism, Humanism, and Progressivism. I believe that education should focus on developing personal meanings through hands-on activities, the same as Constructivism. Education should also prepare students for our ever changing reality, which is what Progressivism advocates. Humanism focuses on the individual, as in individual interests, needs, and assessment.

My philosophy of education could be a refreshing change to the majority of Behaviorism, Essentialism and Perennialism. My philosophy of education will likely have no conflict during the time when curriculums are shifting over to Common Core State Standards, MCL, and authentic curriculum. I could be a leader in modeling student-centered practice in my school district.

Within the school, I would love to give students time in a math lab where they can experiment with manipulatives and other tools to aid their understanding of math concepts. I will hold career fairs, where professionals from the community can come in and demonstrate or talk to the students about how they are using math in their jobs.

I hope to start a math club or community school that is supported by volunteers. There could be peer tutoring too. Later on, high school students can help middle school students. My vision of this after-school math club could accommodate kids from grade 4 to grade 12. If this club is located in Farmington, ME, we can recruit UMF math major volunteers. Both the students and tutors will benefit from these interactions. Building a community which values the importance of numeracy education will strengthen the students' motivation in learning and bring forth a brighter economic future for our local community, the state of Maine and beyond.

I witnessed my personal growth on my beliefs of education because of my training at UMF. I am confident that I will not teach my math class the traditional fact-based style, because of my learning at UMF. I am sure I will keep on learning more about education as I start teaching, and my philosophy of education will keep evolving.

References

Johnson, J. A. (2011). *Foundations of American education: Perspectives on education in a changing world* (15th ed.). Upper Saddle River, N.J: Pearson.

Murphy, M. M. (2006). *The history and philosophy of education: Voices of educational pioneers*. Upper Saddle River, N.J: Pearson/Merrill Prentice Hall.